

1. A device for producing electrical energy by using the potential energy of automobile traffic in a roadway comprising:

- a. a deformable upper plate;
- b. a plurality of electro-mechanical generating pumps producing a usable electrical current;
- c. a rigid lower plate; and
- d. electrical conductor wires, the device embedded within the roadway wherein passing vehicular traffic compresses the deformable upper plate, compressing the electro-mechanical generating pumps between the deformable upper plate and the rigid lower plate, such compression producing such usable electrical current through the electrical conductor wires.

2. A device for producing electrical energy by using the potential energy of automobile traffic in a roadway comprising:

a. a deformable upper plate having an upper surface, a series of individual rigid tread plates linked together by a linking plate and linking pins, the individual rigid tread plates of a nature and material which will not permanently deform when subjected to repeated exposure to heavy traffic conditions over time;

b. a rigid lower plate, having a lower surface, which is a single sheet of material which will not be deformed over time by the constant flow of traffic;

c. an electro-mechanical generating pumps, having a means of producing electrical current, such means further comprising:

i. an upper piston cap having an interior cavity and a top endpiece, the top endpiece having an upper surface and a lower surface from which a descending driver arm extends into the interior cavity;

ii. a base piston shell having an interior cavity and a base member, the upper piston cap and the base piston shell being compressibly connected by at least one spring, such base member having an upper surface and a lower surface; and

iii. an electrical generator affixed to the upper surface of the base member, the electrical generator having a drive gear engaging the descending driver arm attached to the top endpiece; and

d. electrical conductor wires extending through the base piston shell connecting the electrical conductor wires to an electrical apparatus or to a location where generated electrical current may be stored or collected for remote use.

3. The device, as disclosed in Claim 2, wherein the electrical generator is a Y-connected four wire, three phase electrical generator supplying an A phase, a B phase, a C phase and a neutral phase wire as the electrical conductor wires.

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4. The device as disclosed in claim 2, the device installed in the roadway wherein the lower surface of the rigid lower plate is placed on an exposed firm roadbed, after which a paved road surface is applied over the upper surface of the deformable upper plate, the installed device thereafter producing electrical energy when a vehicle passes over the paved road surface compressing the electro-mechanical generating pumps between the deformable upper plate and the rigid lower plate, the electro-mechanical generating pumps returning to their expanded state awaiting the weight of another passing vehicle activating the electro-mechanical generating pumps.

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5. A method of producing electrical energy by using the potential energy of automobile traffic in a roadway comprises the steps of:

- a. providing a device having a deformable upper plate, a plurality of electro-mechanical generator pumps, a rigid lower plate and electrical conductor wires whereby compression of the electro-mechanical generating pumps between the deformable upper plate and the rigid lower plate produces a usable electrical current through the electrical conductor wires ;
- b. preparing a roadbed to firmly support the device;
- c. placing the device on the prepared roadbed ;
- d. applying a paved road surface over the device which would allow vehicular traffic to pass over such paved road surface; and
- e. attaching the electrical conductor wires to an electrical apparatus or to a location where generated electrical current may be stored or collected for remote use.